Artificial intelligence, robotics, advanced technologies and human resource management: a systematic review

Abstract

Abstract Although academic production in intelligent automation (e.g. artificial intelligence, robotics) has grown rapidly, we still lack a comprehensive understanding of the impacts of the utilization of these technologies in human resource management (HRM) at an organizational (firms) and individual (employees) level. This study therefore aims to systematize the academic inputs on intelligent automation so far and to clarify what are its main contributions to and challenges for HRM. In a systematic search of 13,136 potentially relevant studies published in the top HRM, international business (IB), general management (GM) and information management (IM) journals, we found 45 articles studying artificial intelligence, robotics and other advanced technologies within HRM settings. Results show that intelligent automation technologies constitute a new approach to managing employees and enhancing firm performance, thus offering several opportunities for HRM but also considerable challenges at a technological and ethical level. The impact of these technologies has been identified to concentrate on HRM strategies, namely, job replacement, human-robot/AI collaboration, decision-making and learning opportunities, and HRM activities, namely, recruiting, training and job performance. This study discusses these shifts in detail, along with the main contributions to theory and practice and directions for future research.